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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/429,028	10/29/1999	CLAIRE BESSET-BATHIAS	Q56456	5444

7590 12/03/2002

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EXAMINER

SHAH, CHIRAG G

ART UNIT	PAPER NUMBER
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2664

DATE MAILED: 12/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/429,028

Applicant(s)

BESSET-BATHIAS, CLAIRE

Examiner

Chirag G Shah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 11-13 is/are rejected.
- 7) ☒ Claim(s) 8-10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 7 and 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Gritton (U.S. Patent No. 5,940,397) in view of Petersen (U.S. Patent No. 5,802,051).

Referring to claims 1 and 11, Gritton teaches of a method and an apparatus for scheduling and transmitting ATM data cells. Gritton discloses in claim 1, figures 2, 3, 5b, 5c and respective portions of the specification of scheduling ATM cell transmission times in a way as to keep ATM cell spacing as constant as possible. This is accomplished via communication between the segmenter and scheduler, indicating that the VC has cells stored within memory and may be transmitted. Scheduler, then determines the most appropriate time to transmit a cell making sure to keep cell spacing as constant as possible in order to avoid any traffic congestion or bottlenecking. Gritton further teaches in columns 4 and 5 that scheduling methods effectively multiplex cells from a plurality of VCs, and allow each VC to have a unique transmission rate that can be dynamically adjusted and can support a plurality of transmission priority levels. Thus, multiplexing a plurality of connections into a same ATM connection having the scheduled ATM cell transmission times takes place as claim. Gritton, however, fails to teach explicitly of generating ATM cells for purpose of low bit rate applications. Peterson discloses a method of

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improving the utilization of available bandwidth when ATM is used in conjunction with a low bit rate data application. Peterson teaches in columns 3-6 that the present invention simultaneously multiplexes more than one user data packet on a single minicell connection as a function of transmission priority by employing a predefined transmission priority assignment schedule and by providing a modified user data packet segmentation process. Thus, it is necessary for low bit rate applications to include scheduling of ATM cell transmission time and multiplexing of low bit rate connections. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teaching of Gritton to include generating ATM cells for purpose of low bit rate application as taught by Peterson in order to illustrate how scheduling improves utilization of the available bandwidth in low bit rate applications.

Referring to claim 7, Gritton discloses in column 11 that if no ATM cell is sent when there is no data available for any of the connection, a method further includes referencing and scheduling with respect to the next availability of data from at least one of the connections as claim.

3. Claims 2-6 rejected under 35 U.S.C. 103(a) as being unpatentable over Gritton (U.S. Patent No. 5,940,397) in view of Petersen (U.S. Patent No. 5,802,051) as applied to claim 1, 7, and 11 above, and further in view of Depelteau (U.S. Patent No. 6,404,767).

Referring to claim 2 and 6, Gritton in view of Peterson teaches of scheduling ATM cell transmission times in a way as to keep ATM cell spacing constant and multiplexing a plurality of low bit rate connection into a same ATM connection in generating ATM cells for low bit rate applications. Gritton in view of Peterson fail to disclose that ATM cell spacing is kept as close

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as possible to a cell rate negotiated and renegotiated for the corresponding ATM connection.

Depelteau teaches of systems and methods for implementing ABR flow control in ATM switches. Depelteau discloses in column 2, that each cell contains an explicit rate parameter which may be adjusted as the cells pass through the ATM switches in the path in either the forward or backward direction and that explicit rate contained in the cells when it returns to the source is the maximum rate at which the source can send cells and it may be reduced as low as the minimum cell rate guaranteed to the source during connection establishment. Thus, a cell rate is negotiated and renegotiated. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify Gritton in view of Petersen's invention to include what Depelteau teaches in order for cell rate to have the ability to negotiate and renegotiate allowing sufficient rates to establish a connection.

Referring to claims 3-5, Gritton in view of Peterson teaches of scheduling ATM cell transmission times in a way as to keep ATM cell spacing constant and multiplexing a plurality of low bit rate connection into a same ATM connection in generating ATM cells for low bit rate applications. Gritton in view of Petersen fails to teach that the cell rate is a service category type of PCR, CBR or DBR and BCR and ABR type. Depelteau discloses in columns 6-8 that cells are generated on a per ABR connection basis and that each port has a fixed output capacity. At any instant in time, portions of this capacity must be allocated to various traffic classes including VBR, CBR and ABR. Each virtual connection of any type including ABR is always guaranteed. For each port, high priority traffic such as VBR and CBR is serviced first. Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to modify Gritton in view of Petersen's invention to include the teaching of including the capacity to

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allocate service type for various traffic scenarios as taught by Depelteau to provide a better more effective utilization of bandwidth.

4. Claims 12 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Gritton in view of Petersen as applied to claims 1, 7, and 11 above, and further in view of Harth (U.S. Patent No. 6,331,981).

Referring to claims 12 and 13, Gritton in view of Petersen fails to teach of a base station for a mobile radio communication network comprising a device for multiplexing low bit rate traffic from a plurality of sources into a same ATM connection for transmission to a base station controller and base station respectively. Harth teaches of a method and network component for switching low bit rate connections between input modules and output modules in a communication network. Harth discloses in figure 1 and respective portions of the specification that network components such as base station controller or a radio network controller as part of the GSM mobile radio network along with ATM switching state are connected via multiplexer AMX and are able do multiplexing of low bit rate traffic for transmission to a base station controller. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify Gritton in view of Petersen's invention to include network components such as base station controller as taught by Harth to allow economical use of the ATM bandwidth to simultaneously support TDM traffic with a low bit rate.

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Allowable Subject Matter

5. Claims 8-10 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or faxed to:

(703) 305-3988, (for formal communications intended for entry)

Or:

(703) 305-3988 (for informal or draft communications, please label "Proposed" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Chirag G Shah whose telephone number is 703-305-5639. The examiner can normally be reached on M-F 7:30 to 4.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 301-305-4366. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

cgs

November 22, 2002

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AJP (Pals)
11/22/02